AMENDMENT

In the Claims:

Please amend the claims as shown in the following listing of claims, which will replace all prior versions and listings of claims in the application.

1-23. (Canceled)

24. (Currently Amended) An isolated N- and C-terminally double truncated tau molecule further defined as a type IA tau molecule, type IB tau molecule, type IIA tau molecule, or type IIB tau molecule.

25. (Previously Presented) The N- and C-terminally double truncated tau molecule of claim 24, further defined as a type IA tau molecule:

having at least the first 236 N-terminal amino acids and at least the last 45 C-terminal amino acids of the 4 repeat containing tau43 truncated;

detectable in Alzheimer's diseased brain tissue but not detectable in normal healthy brain tissue; and

preventing normal tau protein from promoting microtubule assembly in an in vitro microtubule assembly assay, wherein prevention of the promotion of microtubule assembly can be eliminated by specific inhibitory, neutralizing monoclonal antibodies against the molecules in a microtubule assembly assay.

26. (Previously Presented) The type IA tau molecule of claim 25, further defined as comprising an amino acid sequence of any of SEQ ID NO: 1 to 3.

27. (Previously Presented) The N- and C-terminally double truncated tau molecule of claim 24, further defined as a type IB tau molecule:

having at least the first 238 N-terminal amino acids and at least the last 40 C-terminal amino acids of the 4 repeat containing tau43 or the first 207 N-terminal amino acids and at least the last 50 C-terminal amino acids of the 3 repeat containing tau44 truncated;

detectable in Alzheimer's diseased brain tissue whereas the molecules are not detectable

in normal healthy brain tissue; and

not capable of preventing wild type tau from promoting microtubule assembly in an in vitro microtubule assembly assay.

28. (Previously Presented) The type IB tau molecule of claim 27, further defined as comprising an amino acid sequence of any of SEQ ID NO: 4 to 10.

29. (Previously Presented) The N- and C-terminally double truncated tau molecule of claim 24, further defined as a type IIA tau molecule:

having at least the first 68 N-terminal amino acids and at least the last 40 C-terminal amino acids of the 4 repeat containing tau43 or the first 68 N-terminal amino acids and at least the last 20 C-terminal amino acids of the 3 repeat containing tau44 truncated;

detectable in Alzheimer's diseased brain tissue, whereas the molecules are not detectable in normal healthy brain tissue;

having higher microtubule assembly promoting activity than wild type tau in an in vitro microtubule assembly assay, wherein the microtubule assembly promoting activity can be eliminated by specific inhibitory, neutralizing monoclonal antibodies against the molecules in a microtubule assembly assay; and

wherein pathologic activity of the molecule relies on binding to the microtubular network defined by the microtubule polymerization promoting activity.

30. (Previously Presented) The type IIA tau molecule of claim 29, further defined as comprising the amino acid sequence of any of SEQ ID NO: 11 to 18.

31. (Previously Presented) The N- and C-terminally double truncated tau molecule of claim 24, further defined as a type IIB tau molecule:

having at least the first 68 N-terminal amino acids and at least the last 40 C-terminal amino acids of the 4 repeat containing tau43 or the first 68 N-terminal amino acids and at least the last 20 C-terminal amino acids of the 3 repeat containing tau44 truncated;

detectable in Alzheimer's diseased brain tissue, whereas the molecules are not detectable in normal healthy brain tissue; and

having a pathological microtubule assembly promoting activity different from wild type

tau in an in vitro microtubule assembly assay.

32. (Previously Presented) The type IIB tau molecule of claim 31, further defined as comprising the amino acid sequence of any of SEQ ID NO: 19 to 20.

33. (Previously Presented) A transgenic animal expressing a molecule of claim 24.

34. (Previously Presented) A method of screening or testing a candidate compound for utility in the treatment of Alzheimer's disease comprising obtaining a transgenic animal according to claim 33 and using the animal to screen or test the candidate compound.